

### **REMARKS**

Claims 1-27 are pending. Claims 1, 6, 7, 14, 20 and 22 are amended. Claims 1 and 14 are amended to recite "determining if the file transactions indicate a change in the non-relational database based on a record type of the file transactions, wherein the record type is one of a delete, put, and update record." These features are supported at least on page 7 and page 11 of the current specification. No new matter is added as a result of the above amendments. Reconsideration of presently pending claims 1-27 is respectfully requested in light of the above amendments and the following remarks.

### **Rejections under 35 U.S.C. §112, Second Paragraph, Claims 1, 6, 7, 14, 19-20 and 27**

Claims 1, 6, 7, 14, 19-20 and 27 are rejected under 35 U.S.C. §112, Second paragraph, as allegedly failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Regarding to claim 1 and 14, the Examiner states that it is not clear whether "the file transactions" are file transactions polled from the transaction log file or the file transactions of the non-relational database detected. By this Response, claims 1 and 14 are amended to recite "the file transactions read from the transaction log file". Thus, the file transactions referred to in claims 1 and 14 are file transactions that are read from the transaction log file from the reading step.

Regarding to claims 6 and 19, the Examiner is confused by the term "next transaction record", since there is no transaction record recited in claims 1, 4, and 5. By this Response, claims 6 is amended to remove the limitation of "next transaction record". In addition, the Examiner does not know what is included or excluded by the limitation "determining from the configure file if the next transaction record is to be at least one of deleted, put, and updated in the at least one relational database." because while claim 1 recites changes in a non-relationship database, the determining step recites changes in the relational database. Also, it is incomplete as to what is "at least one of deleted, put, and updated". By this response, claim 6 is amended to recite "determining from the configure file if each of the file transactions is to be at least one of deleted, put, and updated in the at least one relational database." Thus, a determination is made

from the configure file as to whether each of the file transactions is to be deleted, put, or updated in the relational database. Applicants respectfully submit that “at least one of deleted, put, and updated in the at least one relational database” refers to “deleted, put, or updated in the at least one relational database.”

Regarding claims 7, 20, and 27, the Examiner states that “more than one” is contradicted with the term “at least one” for compact prosecution. By this Response, claims 7, 20, and 27 are amended to recite “wherein the at least one relational database is updated by more than one data replication server at a time.” Thus, the contradiction between the terms is now removed.

Accordingly, Applicants respectfully request the withdrawal of the rejection to claims 1, 6, 7, 14, 19-20 and 27 under 35 U.S.C. §112, Second Paragraph.

**Rejections Under 35 U.S.C. §102(b), Claims 1, 2, 4, 7-12, 14-15, 17, 20-24, and 26-27**

Claims 1, 2, 4, 7-12, 14-15, 17, 20-24, and 26-27 are rejected under 35 U.S.C. §102(b) as being allegedly anticipated by Martin (US Patent No. 6,029,178 hereinafter referred to as “Martin”). This rejection is respectfully traversed.

Martin does not disclose “determining if the file transactions read from the transaction log file indicate a change in the non-relational database based on a record type of the file transactions, wherein the record type is one of a delete, put, and update record.” The Examiner alleges that Martin discloses such features at column 6, lines 35-66, which reads as follows:

For each target computer system, the method operates to compare the edition level value comprised in the change record with the edition level value of the target computer system. This comparison determines whether the target and source database edition level values match. If the target and source database edition levels match, the change record is propagated to the target database. If the target and source database edition levels are different, the change record is not propagated to the target database.

During propagation of the change record, the changes made to the source database are moved, transformed, and applied to the target database. If the edition level of the target computer system is stored on the target computer system, the target edition value is obtained after transforming and moving the data. If the

edition level of the target computer system is stored in a repository, the target edition value is obtained prior to transforming and moving the data.

The EDM method also maintains these edition values in a repository. The edition level of the source database is initialized when a source data resource profile is created. The edition level of a source database is changed in response to various operations, including performing a recovery operation on the source database and changing the schema in the source database. The edition level value of the target database in the repository is changed on two occasions: (1) in response to a bulk data move from a source database to the target database, or (2) in recognition that the source edition has changed and that the target is in sync without reload. (Emphasis added)

In the above section, Martin merely discloses that a comparison is made between edition level value in the change record of the source database and edition level value in the change record of the target database. Martin does not mention anything about a record type of the file transactions, let alone a record type that is one of delete, put, and update record. Martin merely compares values of the edition level between the source and target databases to determine whether to propagate the change record to the target database. This is different from the features of claim 1, in which a change is indicated if the record type of the file transaction is one of delete, put, and update record. Therefore, Martin does not disclose the features of claims 1 and 14. Accordingly, Applicants respectfully request the withdrawal of the rejection to claims 1, 2, 4, 7-12, 14-15, 17, 20-24, and 26-27 under 35 U.S.C. §102(b).

In addition, Martin fails to disclose the specific features of dependent claims 2, 4, 7-12, 15, 17, 20-24 and 26-27. For example, Martin fails to disclose “wherein the at least one relational database is updated by more than one data replication server at a time,” as recited in claims 7 and 20. The Examiner alleges that Martin discloses these features at column 12, lines 53-54, and column 19, line 63 to column 20, line 3. However, in these sections, Martin merely discloses that more than one target DBMS may be updated from a single source. Martin does not disclose that a target DBMS may be updated by more than one source. Therefore, Martin also does not disclose the features of claims 7 and 20.

**Rejections Under 35 U.S.C. §103(a), Claims 3 and 16**

Claims 3 and 16 are rejected under 35 U.S.C. §103 as being unpatentable over Martin and further in view of the alleged Applicants' admitted prior art (AAPA). Martin and the alleged AAPA cannot be applied to reject claims 3 and 16 under 35 U.S.C. § 103(a). As discussed in arguments presented above for claims 1 and 14, Martin does not disclose or suggest "determining if the file transactions read from the transaction log file indicate a change in the non-relational database based on a record type of the file transactions, wherein the record type is one of a delete, put, and update record." The alleged AAPA also fails to disclose such features.

On page 8, last paragraph of the current specification, it states that relational databases 22, 24 may include an Engineer Data Analysis (EDA) relational database or a Manufacturing Execution System (MES) relational database, for example. However, the alleged AAPA do not disclose the features as recited in claims 1 and 14, from which claims 3 and 16 depend. Rather, the alleged AAPA merely discloses examples of relational databases to which file transactions may be sent from the at least one replication server. There is no mention of a record type of file transactions, let alone the record type is one of delete, put, and update record. Therefore, the alleged AAPA also does not disclose the features of claims 1 and 14, from which 3 and 16 depend.

In addition, in the "Response to Arguments" section of the office action, the Examiner states that "a prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art. Once such a case is established, it is incumbent upon appellant to go forward with objective evidence of unobviousness." However, there is no teaching in the alleged AAPA that would appear to suggest to an ordinary skill in the art that a record type of the file transactions indicate a change in the non-relational database. Even when the alleged AAPA is viewed in combination with Martin, there is no teaching or suggestion in either reference of determining if the file transactions indicate a change based on record type. Therefore, the prima facie case of obviousness has not been established as alleged by the Examiner.

Thus, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection to claims 3 and 16 under 35 U.S.C. §103(a) should be withdrawn.

**Rejections Under 35 U.S.C. §103(a), Claims 5, 6, 13, 18, 19, and 25**

Claims 5, 6, 13, 18, 19, and 25 are rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Martin and further in view of Draper (U.S. Patent No. 6,192,365).

It is submitted that, in the present case, the Examiner has not factually supported a *prima facie* case of obviousness for the following, mutually exclusive, reasons.

**I. Even When Combined, the References Do Not Teach the Claimed Subject Matter**

Martin and Draper cannot be applied to reject claims 5, 6, 13, 18, 19, and 25 under 35 U.S.C. § 103(a). As discussed in arguments presented above for claims 1 and 14, Martin does not disclose or suggest "reading the file transactions from the transaction log file of the non-relational database and determining if the file transactions indicate a change in the non-relational database." Draper also fails to disclose such features.

Draper merely discloses "management of transaction logs which contain updates representing operations performed on separate disconnectable computers." (column 1, lines 9-12). Draper does not mention anything about determining if the file transactions indicate a change in the non-relational database based on a record type of the file transactions. Draper is merely interested in managing a transaction log that already contains updates of operations performed on separate computers. In particular, Draper is interested in log compression by removing redundant updates (abstract). However, nowhere in the reference does Draper mention anything about a record type. Instead, at column 36, lines 39-48, Draper discloses that "each update object in the transaction log has one or more unreplicated attributes containing the UOID of the previous update object affecting the same database object." The UOID represents the unique object identifier within the target database. Thus, instead of the record type being one of update, delete, and put record, Draper uses a UOID to identify the update objects. Therefore,

Draper also does not disclose the features of claims 1 and 14 from which claims 5, 6, 13, 18, 19, and 25 depend.

In addition, in the "Response to Arguments" section of the office action, the Examiner states that "a *prima facie* case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art. Once such a case is established, it is incumbent upon appellant to go forward with objective evidence of unobviousness." However, there is no teaching in Draper that would appear to suggest to an ordinary skill in the art that a record type of the file transactions indicate a change in the non-relational database. Even when Draper is viewed in combination with Martin, there is no teaching or suggestion in either reference of determining if the file transactions indicate a change based on record type, let alone a record type that is one of delete, put, and update. Therefore, the *prima facie* case of obviousness has not been established as alleged by the Examiner.

Thus, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection to claims 5, 6, 13, 18, 19, and 25 under 35 U.S.C. §103(a) should be withdrawn.

## **2. The Combination of References is Improper**

Assuming, *arguendo*, that none of the above arguments for non-obviousness apply (which is clearly not the case based on the above), there is still another, mutually exclusive, and compelling reason why Martin and Draper cannot be applied to reject claims 5, 6, 13, 18, 19, and 25 under 35 U.S.C. § 103(a)

Here, Martin and Draper fail to disclose, or even suggest, the desirability of the combination of "determining if the file transactions indicate a change in the non-relational database based on a record type of the file transactions, wherein the record type is one of delete, put, and update" as specified above and as claimed in claims 1 and 14, from which 5, 6, 13, 18, 19, and 25 depend. Instead of a record type, Martin compare edition level values of the source and target databases. Draper merely uses a unique object identifier to identify update objects.

There is no disclosure or suggestion in either reference of a record type, let alone a record type of delete, put, or update.

Therefore, one of ordinary skill in the art would not have been led to modify or combine the disclosures of Martin and Draper to reach the presently claimed features. Thus, it is clear that neither reference provides any incentive or motivation supporting the desirability of the combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. § 103(a) rejection.

In the above context, the courts have repeatedly held that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.

In the present case it is clear that the Examiner's combination arises solely from hindsight based on the invention without any showing, suggestion, incentive or motivation in either reference for the combination as applied to claims 1 and 14. Therefore, for this mutually exclusive reason, the Examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection to claims 5, 6, 13, 18, 19, and 25 under 35 U.S.C. § 103(a) should be withdrawn.

**Conclusion**

It is clear from all of the foregoing that independent claims 1 and 14 are in condition for allowance. Dependent claims 2-13 and 15-27 depend from and further limit independent claims 1 and 14 and therefore are allowable as well.

An early formal notice of allowance of claims 1-27 is requested.

Respectfully submitted,



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